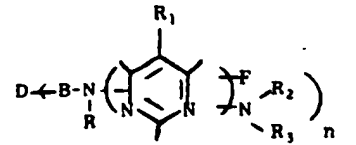
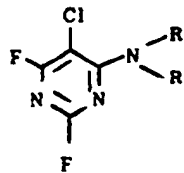
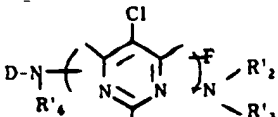
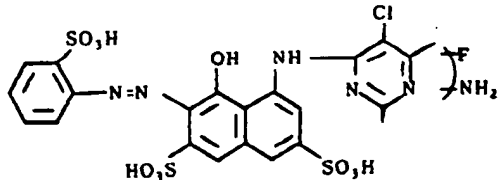


85-099801/17 BAYER AG 04.10.83-DE-335956 (18.04.85) C07d-239742 C09b-62720 D06p-01/38 New reactive dyes contg. chloro-fluoro-pyrimidinyl gp. - for dyeing polyamide, polyurethane and cellulose	A60 E23 F06	FARB 04.10.83 *DE 3335-956-A	A(8-E3, 12-55N, 12-55P) E(7-D12, 21-D2, 25) F(3-F2, 3-F3, 3-F6, 3-F10, 3-F16) <div style="text-align: right;">115</div>
C85-043136 Reactive dyes of formula (I) are new:		<p> $R_2 = \text{H, alkyl (opt. substd. by OH, alkoxy, CN, COOH, halo or CH}_2\text{CONH), cycloalkyl, aryl or opt. substd. hetero-cyclyl;}$ $R_3 = \text{H, alkyl (opt. substd. as } R_2\text{), or } R_2 \text{ and } R_3 \text{ together with alkylene, opt. interrupted by O, S, NH or NR.}$ Also new are intermediates of formula (II) </p>	
<div style="text-align: center;">  $D \leftarrow B - N \begin{pmatrix} R_1 \\ \text{pyrimidine ring} \\ R_2, R_3 \end{pmatrix} \quad (I)$ </div> <p> D = organic dye residue; n = 1-4; B = direct bond or bridging gp. to a C atom in an aromatic carboxylic ring or to a C or N atom in a heterocyclic aromatic ring of D; R = H or opt. substd. 1-4C alkyl; $R_1 = \text{H, halo, opt. halo-substd. 1-4C alkyl or 2-4C alkenyl, NO}_2, \text{CN, SO}_3\text{H, opt. N-substd. carbamoyl or sulpha-moyl or sulphonate ester;}$ </p>		<div style="text-align: center;">  $\begin{matrix} Cl \\ \\ F - C - N - R_8 \\ \quad \\ N \quad R_9 \\ \\ F \end{matrix}$ </div> <p> $R_8 = \text{H or 1-4C alkyl, opt. substd. by MeO, OH, COOH or SO}_3\text{H; and}$ $R_9 = \text{H, 1-4C alkyl (opt. substd. as } R_8\text{), phenyl (opt. substd. by Me, Et, OMe, OEt, Cl, COOH or SO}_3\text{H) or naphthyl substd. by SO}_3\text{H.}$ </p>	
<p> <u>USE</u> (I) are useful for dyeing or printing OH- or N-contg. DE3335956-A* </p>			

fibres, e.g. wool, silk, synthetic polyamide or polyurethane or natural or regenerated cellulose.
PREFERRED DYES
 $D - N \begin{pmatrix} R_1 \\ \text{pyrimidine ring} \\ R_2, R_3 \end{pmatrix}$
<p>D' = sulpho- and/or COOH-contg. residue of mono- or poly-azo, metal complex, anthraquinone, phthalocyanine, formazan, azomethine, nitroaryl, phenazine or stilbene type dyes; R'₁ = H or Me; R'₂ = H; and R'₃ = H; 2-, 3- or 4-sulphophenyl or disulphophenyl.</p>
CLAIMED PREPARATION
<p>2,4,5-Trifluoro-5-R₁-pyrimidine (III) is reacted, in any suitable sequence, with D-B-N(R)H (IV) and HNR₂R₃, opt. with isolation of intermediates. In a modification, (IV) is replaced by a dye precursor, or e.g. an azo coupler, then this converted to (I) after con-densation.</p>

STARTING MATERIALS
(III; R ₁ = Cl) is reacted with NHR ₈ R ₉ , pref. in an aq. system at pH 6-7, to give (II).
EXAMPLE
<p>65.5 g of 2-(2-sulphophenylazo)-1-hydroxy-8-(2,4-difluoro-5-chloropyrimidin-6-yl)amino-naphthalene-3,6-disulphonic acid (see Example 18 of DE1644171) was dissolved in 600 ml water. 25% NH₃ was added to pH 8.9 and the mixt. reacted at 50°C (maintaining the pH) until t.l.c. showed reaction was complete.</p>
<p>HCL was then added to pH 6.5, the prod. salted out, filtered off, dried and ground to give dye (Ia) which was freely soluble in water and dyed cotton red.</p>
 $\begin{matrix} SO_3H \\ \\ \text{Naphthalene ring} \\ \quad \quad \\ HO_2S \quad OH \quad NH - \text{pyrimidine ring} \\ \\ Cl \end{matrix}$
(71pp1251WADwgNo.0/0).
DE3335956-A